

# New York State Department of Transportation

## Yellow Flag NB22U4W003

By: Malav Shah

Flag Date: December 08, 2022

Superseding Information:

No Flags Superseded

### Structure Information

**BIN: 1065318**

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

### Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: December 16, 2022 11:00:00 AM

Of: NYSDOT Region 11

### Signature Information

Signature: Malav Shah, P.E. 106620-1

Date: December 22, 2022

Reviewed By: Robert Kemp

Date: December 22, 2022

Attachments: 8

### Flagged Elements

Parent Element	Element	Total Quantity	Unit
<b>Span Number : 164</b>			
	PR311 - Movable Bearing	17	each

### Flagged Condition Description

This Yellow Flag No. NB22U4W003 is NEW.

Location: Span 164, Girder G14 bearing at Pier 164, (above the shielding platforms installed by contractor over the parking lot between 38th and 39th Street).

#### Description:

The Girder G14 bearing at Pier 164 exhibits 100% section loss in half of the total length of bearing spindle (in portion located on the right side of the girder web). There is an accumulation of pack rust between the masonry plate and the bearing brick shaped device that creates a 1/8" gap, allowing the bearing device to move laterally upon hammering. Due to the absence of the bearing spindle on the top of the brick shaped bearing device, the girder web is not supported on the bearing.

In addition, the girder web above the bearing exhibits up to 1/4" localized pitting (approximately 11% section loss) over an area of 8"W x 10"H and the guide angles on both sides of the girder web exhibits 100% section loss on edges of connecting legs (up to 1-1/2" wide) with up to 90% section loss in remaining surface of the connecting leg. Both bolts in the guide angles are sheared off.

Additionally, the web portion of the girder adjacent to the bearing area also exhibits 1/4" deep section loss over an area of 19"H x 11"L (11% section loss). The bottom flange on both sides of the web exhibits up to 75% section loss over an area of 6"W x up to 65"L. (refer to Yellow Flag Condition Sketch Photo #2 for more details)

This is a newly flagged condition.

#### Notes:

1. Adjacent Girder G13 has repair plates in good condition at Pier 164.
2. Adjacent Stringer S3 has repair plates in good condition at Pier 164. Stringer S3 supports the railing above and does not take any live load.
3. At a distance of 19" from the Girder G14 end, the thickness of the Girder G14 web decreases from 2-1/4" to 0.667" thick. The web beyond the 19" from girder end, exhibits severe section loss (up to 95% section loss) over an area of 12"H x 168"L along the bottom flange, with several large holes up to the size of 7"L x 2-4"H (See Photo No. 4).
4. Yellow Flag No. NB22U4W002 was issued for this Girder G14 at Pier 163 (the other end of this Girder G14), for web section loss of 56% in the Girder G14 web shear area along the connection angle at the connection of G14 to Pier 163.
5. The shielding platform was installed at the time of inspection so a single lane closure in the right lane on 3rd Avenue WB between 36th and 39th Streets, with a 60 ft bucket truck, was used to access the platform.
6. The previous 2021 Biennial Report documented the above bearing location as CS3 with the following Condition State note:  
The bearing under Girder G14 on Span 164 side of Pier 164 exhibits a 1/8" gap between the bearing device and masonry plate and is loose when hammering at the bearing but remains secure. The bearing is held by a groove stop at the bottom. Both guide angles at the bearing exhibit 100% edge section loss for 1" wide at the bottom of the angles with 30% section loss in the surrounding areas. Also, the left guide angle exhibits 100% edge section loss for the end half of the angle.

**Flag Photographs**

Photo Number: 1

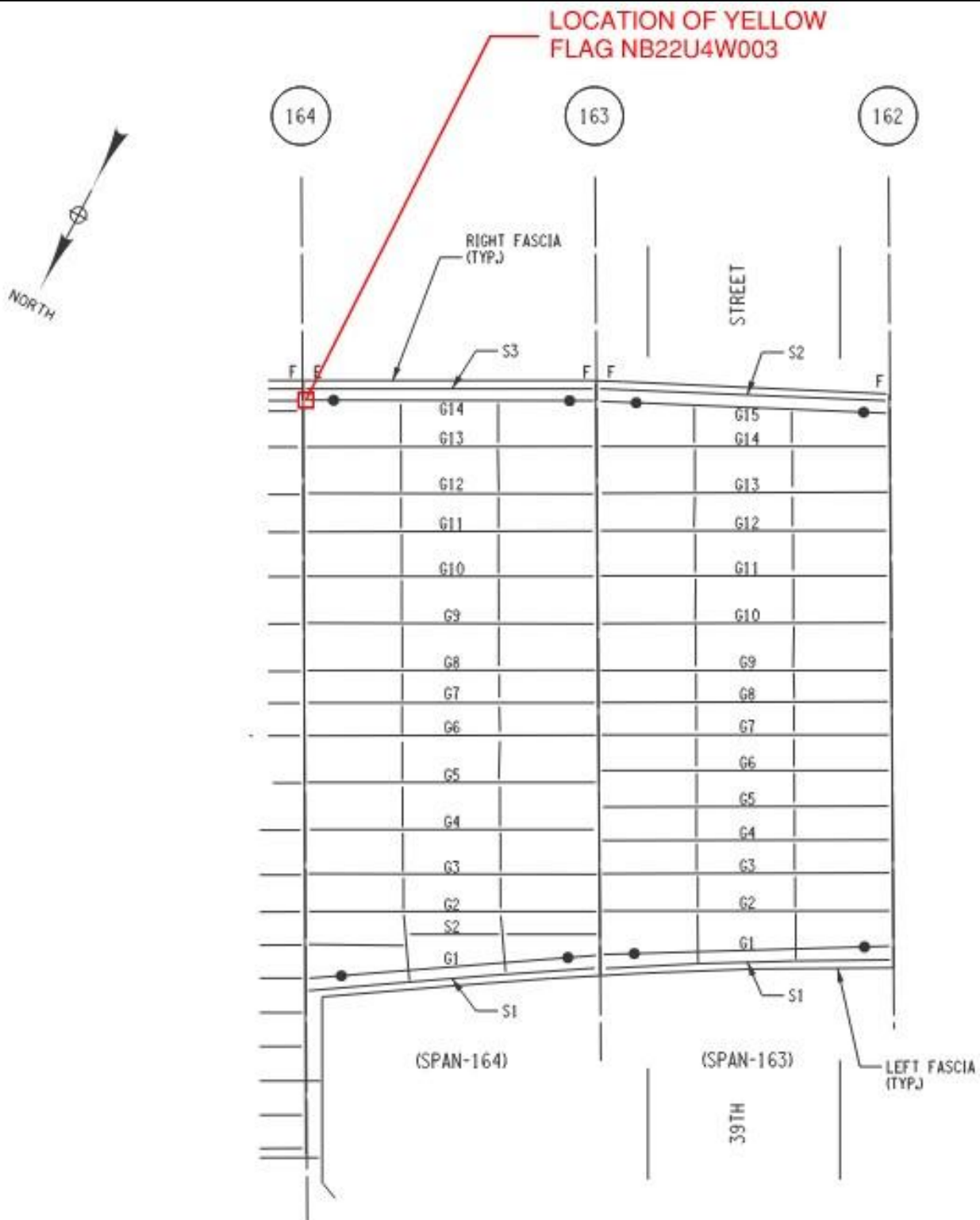
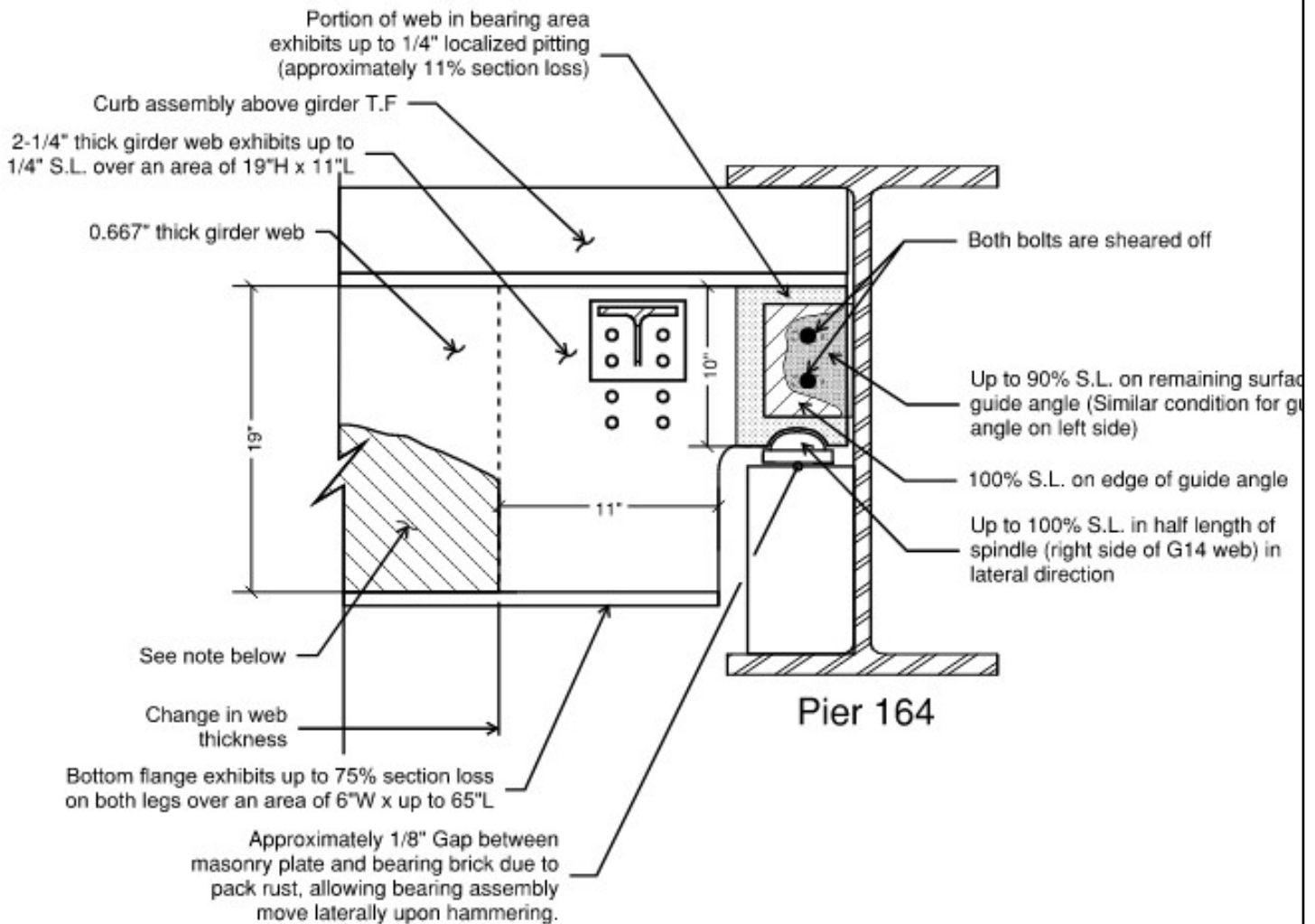
Photo Filename: **FRAMING PLAN.jpg****Attachment Description: Yellow flag location plan**

Photo Number: 2

Photo Filename: SKETCH.jpg

**Note:**

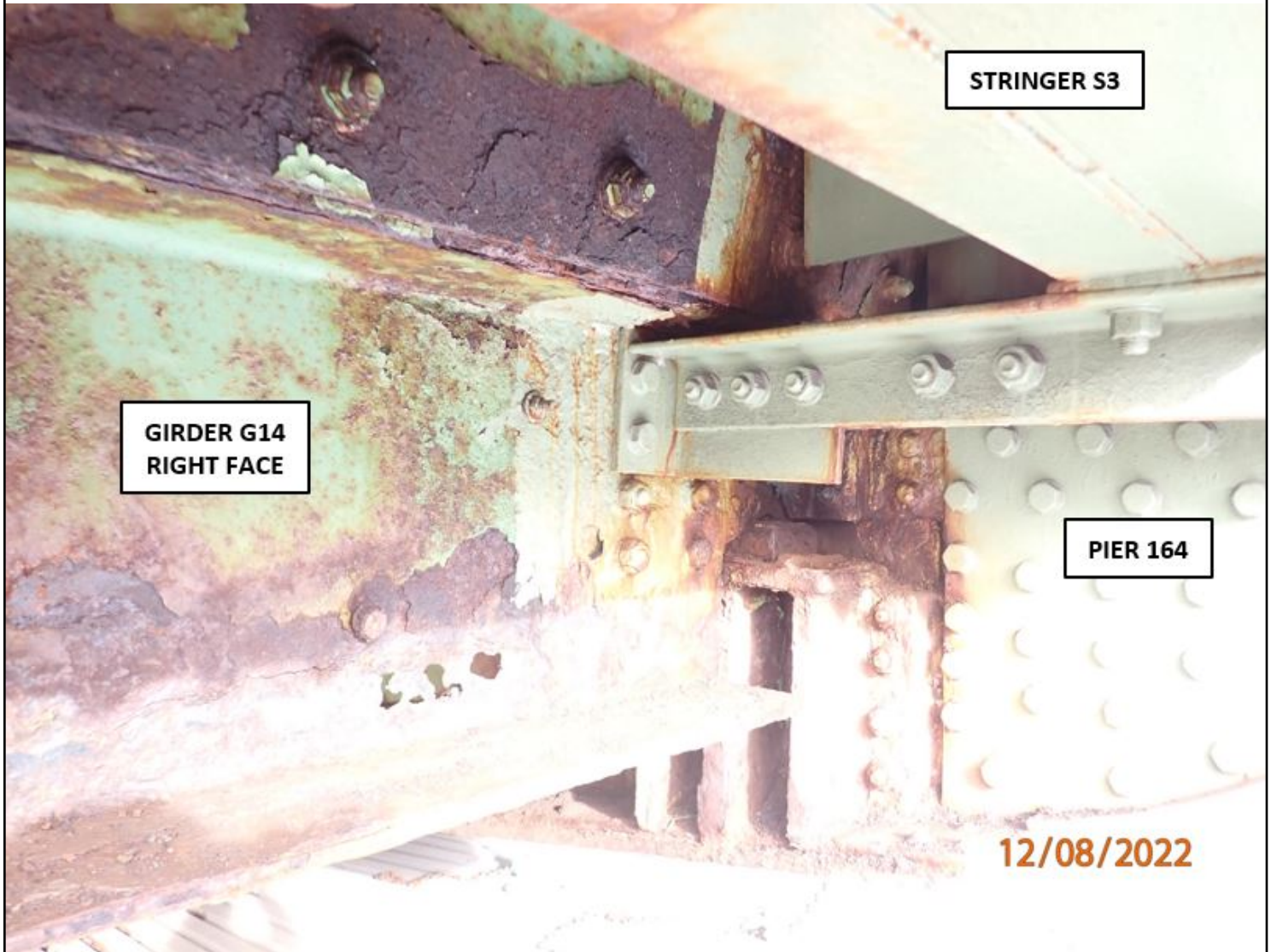
Girder web beyond limit of additional web thickness, exhibits up to 95% section loss over an area of 168" L x 12"H with several holes in web with size of up to 7"L x 2"H.

**SPAN 164, GIRDER G14 BEARING**  
**(LOOKING LEFT)**  
**N.T.S**

*Attachment Description: Yellow flag condition sketch*

Photo Number: 3

Photo Filename: G14 RF @ P164.JPG



**Attachment Description:** General view of Girder G14 in Span 164 at Pier 164. Looking End and Left.

Photo Number: 4

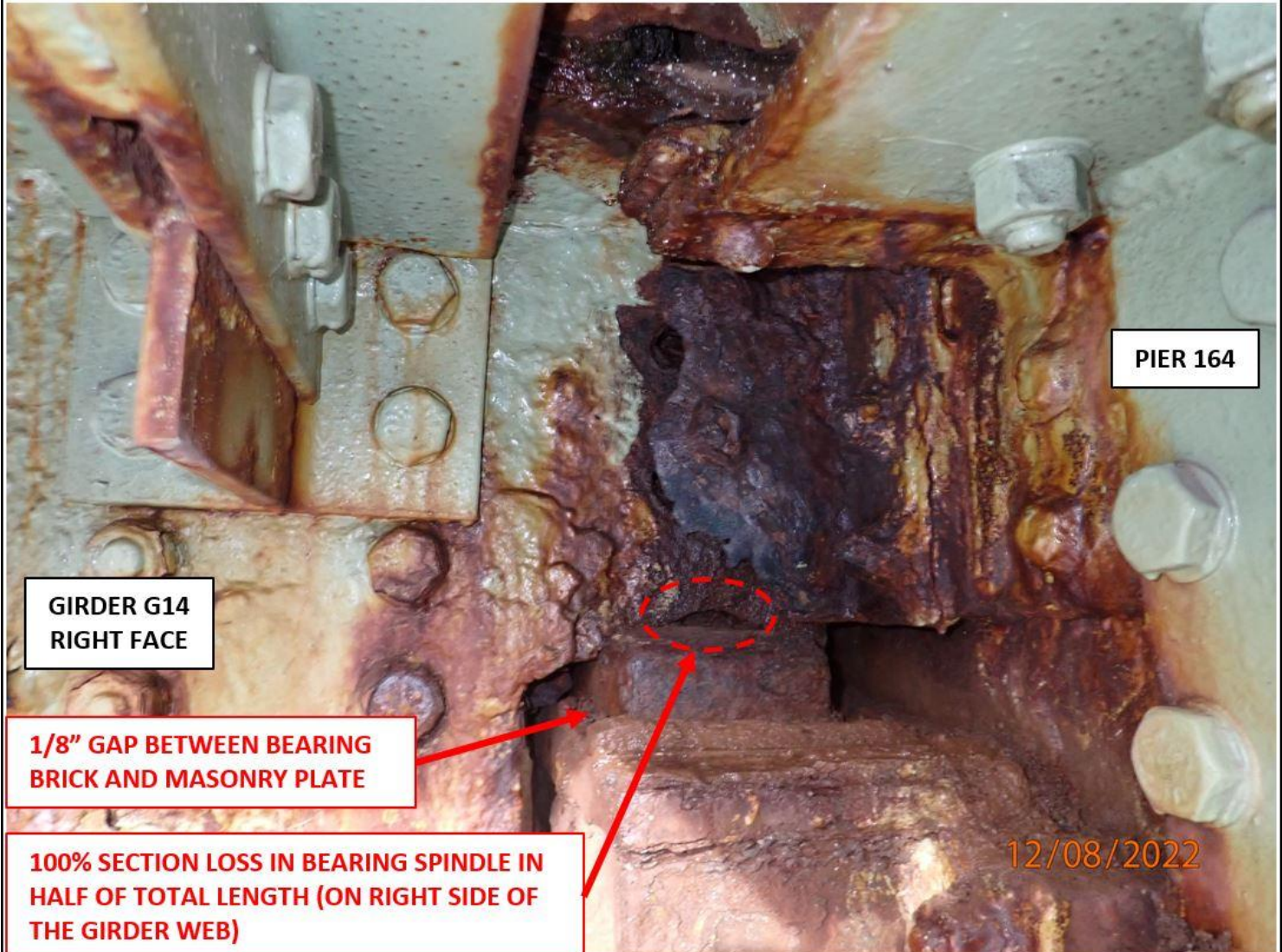
Photo Filename: G14 RF @ P164\_LOOKING LEFT.JPG



**Attachment Description:** General view of Girder G14 bearing in Span 164 at Pier 164. Looking Left. (Note the girder web beyond the bearing exhibits up to 95% section loss, over an area of 12" H x 168"L along the bottom flange with several large holes).

Photo Number: 5

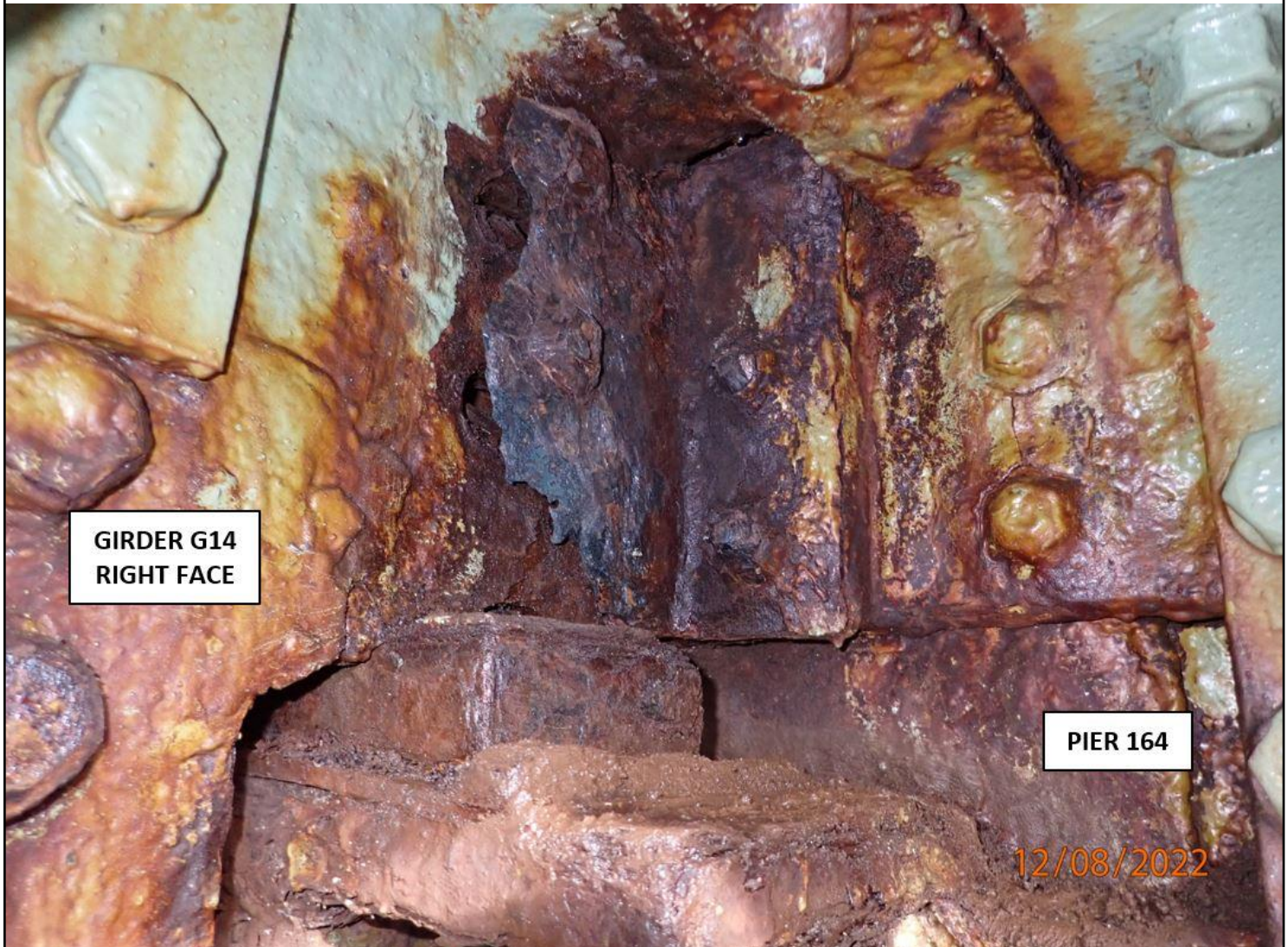
Photo Filename: G14 BEARING AT P164.JPG



**Attachment Description:** The Girder G14 bearing exhibits 100% section loss in half of the total length of bearing spindle. There is 1/8" of gap between masonry plate and bearing brick, allowing bearing to move laterally upon hammering. Looking Left.

Photo Number: 6

Photo Filename: G14 RIGHT CONN. ANGLE.JPG



**Attachment Description:** The girder web above the bearing exhibits up to 1/4" localized pitting over an area of 8"W x 10"H. Guide angles on both sides of the girder web exhibits 100% section loss on edges of connecting legs (up to 1-1/2" wide) with up to 90% section loss in remaining surface of the connecting leg. Both bolts in guide angles are sheared off. Looking End and Left.

Photo Number: 7

Photo Filename: G14 LF @ P164.JPG



**GIRDER G14  
LEFT FACE**

**PIER 164**

12/08/2022

**Attachment Description: General view of Girder G14 in Span 164 at Pier 164. Looking End and Right.**

Photo Number: 8

Photo Filename: G14 LEFT CONN. ANGLE.JPG



**Attachment Description:** The girder web above the bearing exhibits up to 1/4" localized pitting over an area of 8"W x 10"H. Guide angles on both sides of the girder web exhibits 100% section loss on edges of connecting legs (up to 1-1/2" wide) with up to 90% section loss in remaining surface of the connecting leg. Both bolts in guide angles are sheared off. Looking Right.